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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/447,718	11/23/1999	HIDETO KOHTANI	35.G2007D1	4167

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FITZPATRICK, CELLA, HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112-2200

EXAMINER
EBRAHIMI DEHKORDY, SAEID

ART UNIT	PAPER NUMBER
2626	

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7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/447,718	KOHTANI ET AL.	
	Examiner	Art Unit	
	Saeid Ebrahimi-dehKordy	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 37-78 is/are pending in the application.

4a) Of the above claim(s) 1-36 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 37-78 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 37-78 are rejected under 35 U.S.C. 102(e) as being anticipated by Kodama (U.S. patent 5,241,347)

Regarding claims 37,46 and 52 Kodama discloses: An image processing apparatus connectable to an external device that can transmit printing data and to an original-reading device which generates reproduction image data by reading an original image, said image processing apparatus employing an image forming device which forms an image on a sheet, said image processing apparatus comprising: an engine controller for controlling the image forming device based on image data (please note Fig.2b item 202 where the print head controller acts as the engine controller column 9

lines 62-67 and column 10 lines 1-19) a printer controller for forming print image data from the printing data transferred from the external apparatus and transmitting the print image data to said engine controller (please note Fig.2b column 9 lines 62-67 and column 10 lines 1-19 also column 10 lines 31-43) a reader controller for receiving the reproduction image data generated by an original-reading device and for transmitting the reproduction image data to said engine controller (please note Fig.1 column 6 lines 28-38 and column 7 lines 45-66 and Fig.2b item 101 where the image reader controller 101 is in contact with the engine controller 202) and transmitting means for selectively transmitting a state signal indicating a condition of the image forming device to at least one of said printer controller and said reader controller in accordance with a content of the state signal (please note Fig.2c where the sensors 44,60,204 and 203 are sending signals to the printer controller 201 and engine controller 202).

Regarding claim 38 Kodama discloses: The apparatus according to claim 37, wherein said transmitting means selectively transmits the state signal to said printer controller or said reader controller also in accordance with which of the reproduction Image data and the print image data are being transmitted to said engine controller (please note Fig.2c column 9 lines 30-42).

Regarding claim 39 Kodama discloses: The apparatus according to claim 37, wherein the condition indicated by the state signal is a change in a state of the image-forming device (please note Fig.2c column 30-38 where the sensors are indicating changes in the condition of the printer).

Regarding claims 40,43,54 and 56 Kodama discloses: A controller for an image forming apparatus connectable to an external apparatus and to an original-reading device which outputs reproduction image data formed by reading an original image, the image forming apparatus employing an image forming device for forming an image on a sheet, a printer controller which outputs print image data formed from printing data transferred from the external apparatus, and an engine controller which controls the image forming device based on the reproduction image data output by the original-reading device and the print image data output by the printer controller and which outputs a state signal indicating a condition of the image forming device, said controller comprising: first reception means for receiving the reproduction image data output by the original (please note Fig.1 column 6 lines 28-38) second reception means for receiving the print image data output by the printer controller (please note Fig.2b column 9 lines 4-29) selection means for selecting one of the reproduction image data received by

said first reception means and the print image data received by said second reception means (please note column 6 lines 3-11) and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data (please note Fig.2a column 7 lines 57-65) and transmitting means for selectively transmitting a state signal indicating a condition of the image forming device to at least one of a processor which controls the original-reading device, and the - printer controller in accordance with a content of the state signal (please note Fig.2c

column 9 lines 30-43 where the sensor signals 44,60,204,203 and 205 are sending signals to the printer controller and to the engine controller thereto).

Regarding claim 41 Kodama discloses: The controller according to claim 40, wherein said transmitting means selectively transmits the state signal to the processor or the printer controller also in accordance with a source of the selected image data that is transmitted by said selection means to the engine controller (please note Fig.2c where the sensors are transmitted to the printer controller 201 and then on to the engine controller 202).

Regarding claim 42 Kodama discloses: The controller according to claim 40, wherein the condition indicated by the state signal is a change in a state of the image forming device (Please note Fig.2c where the sensors are indicating of for example the humidity of the printer column 9 lines 30-42).

Regarding claim 44 Kodama discloses: The method according to claim 43, wherein the state signal is selectively transmitted to the processor or the printer controller in accordance also with which of the reproduction image data and the print image data is transmitted in said selecting step to the engine controller (please note column 6 lines 3-11).

Regarding claim 45 Kodama discloses: The method according to claim 43, wherein the condition indicated by the state signal is a change in a state of the image-forming device (column 9 lines 30-38).

Regarding claim 47 Kodama discloses: The apparatus according to claim 46, wherein said holding mean holds the command while said reader controller is

transmitting the reproduction image data uses a change in a load of the image forming device (please note column 10 lines 31-48).

Regarding claims 48 and 50 Kodama discloses: A controller for an image forming apparatus connectable to an external apparatus and to an original-reading device which outputs reproduction image data formed by reading an original image, the image forming apparatus employing an image forming device for forming an image on a sheet, a printer controller which outputs i) print image data formed form printing data transferred from the external apparatus and (ii) a command for setting an Operation of the image forming device, and an engine controller which controls the image forming device based on the reproduction image data output by the original-reading device and the command and the print image data output by the Printer controller, said controller comprising: first reception means for receiving the reproduction image data output by the original- reading device (please note Fig.2b item 101 where this image reader controller sends the image data to the engine controller 202, column 9 lines 62-68 and column 10 lines 1-19) second reception means for receiving the command and the print image data output by the printer controller (please note Fig.2b column 9 lines 61-68 and column 10 lines 1-19 where the printer controller 201 receives the image data from the external source and sends it to the engine controller 202) selection means for selecting one of the reproduction image data reception means and the print image data received by said second reception means and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data (please note Fig.2a where the

image data received from the scanner is sent to image controller and thereon send to the print engine)and holding means for holding the command if the command is received by said second reception means while the reproduction image data received by first reception means is being transmitted to engine controller and for transmitting the held command to the engine controller after completion of the transmitting of the reproduction image data to the engine controller (please note column 10 lines 45-67 and column 11 lines 1-26).

Regarding claims 49 and 51 Kodama discloses: The apparatus according to claim 47, wherein said holding means holds the command while the reproduction image data is being transmitted if the command causes a change in a load of the image forming device (please note column 10 lines 45-59).

Regarding claim 53 Kodama discloses: The apparatus according to claim 52, wherein when there is a request to transmit the reproduction image data from the original-reading device to said engine controller while the print image data from said printer controller is being transmitted to said engine controller said transmitting means interrupts transmission of the data request signal to said printer controller and transmits the data request signal to said reader controller (please note Fig.2c column 9 lines 30-61).

Regarding claim 55 Kodama discloses: The apparatus according to claim 54, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said transmitting means

interrupts transmission of the data request signal to the printer controller and transmits the data request signal to the original-reading device (please note Fig.2b column 9 lines 62-68 and column 10 lines 1-19).

Regarding claim 57 Kodama discloses: The method according to claim 56, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said transmitting step comprises interrupting transmission of the data request signal to the printer Controller. And transmitting the data request signal to the original-reading device (please note Fig.2b column 9 lines 4-29).

Regarding claims 58,67 and 73 Kodama discloses: An image processing apparatus usable with an external device that can transmit printing data, said image processing apparatus comprising: an original-reading device which reads an original image and outputs reproduction image data based on the read original image (please note Fig.1 column 6 lines 28-38 and also column 7 lines 45-66) a printer (please note Fig.2c item 201) an engine controller connected to said printer (please note Fig.2c items 201 and 202 (engine controller) column 10 lines 31-43 and column 9 lines 30-35)) controlling said printer based on received image data and outputting a first state signal indicating a condition of said printer (please note Fig.2c items 44,60,203, 204 and 205 checking the condition, column 9 lines 30-43) a reader controller connected to said original reading device and said engine controller (please note Fig.2a items 14,20,106,101 and print head engine column 7 lines 45-66) said reader controller

receiving the reproduction image data output by said original-reading device (please note Fig.2a Items 14,20,101,106 column 7 lines 45-65) transmitting the reproduction image data to said engine controller (please note Fig.2a items 106,101 and engine controller (print head controller 202) column 7 lines 45-66) and receiving the first state signal output by said engine controller and a printer controller connected to said reader controller and connectable to the external device (please note Fig.2b items 101,20,201 and 202 where the printer controller and engine controller and image signal processor are connected together, column 7 lines 66-67 and column 8 lines 1-67 and column 9 lines 4-67) said printer controller receiving the printing data transmitted from the external apparatus forming print image data from the printing data, and transmitting the print image data to said engine controller via said reader controller (please note Fig.2b items 201,101, 20 and 202 where the image received by the printer controller 201 is directed to the image reader controller 101 and the image signal processor 20 to the engine controller 202 column 9 lines 62-68 and column 10 lines 1-19) said reader controller selectively transmitting depending upon a content of the received state signal a second state signal indicating the condition of said image forming device to said printer controller (please note Fig.2a items 14,20,106,101 and 202 to transmit the data to the engine controller 202).

Regarding claim 59 Kodama discloses: The apparatus according to claim 58, wherein whether said reader controller transmits the second state signal to said printer controller also depends upon which of the reproduction image data and the print image

data is being transmitted to said engine controller (please note Fig.2c column 9 lines 30-61).

Regarding claim 60 Kodama discloses: The apparatus according to claim 58, wherein the condition indicated by the state signals is a change in a state of the image forming device (please note Fig.2c column 9 lines 30-47).

Regarding claims 61,69 and 75 Kodama discloses: A controller for an image forming apparatus connectable to an external apparatus, the image forming apparatus employing a printer, an original-reading device which reads an original image and outputs reproduction image data based on the original image, a printer controller which receives printing data transferred from the external apparatus and outputs print image data based on the printing data, and an engine controller which controls the printer based on the reproduction image data and the print image data and which outputs a first state signal indicating a condition of the printer, said controller comprising: a first input port connected to the original- reading device for receiving the reproduction image data (please note Fig.2b item 101where the image reader produces the image data) a second input port connected to the printer controller for receiving the print image data (please note printer controller 201 in Fig.2b where the data received from the external device a third input port connected to the engine controller for receiving the first state signal (please note Fig.2b item 20 where the signal is sent to the engine controller 202 column 9 lines 4-68 and column 10 lines 1-19) a selector connected to the engine controller for selecting one of the reproduction image data received via said first input port and the print image data received via said second input port and for relaying the

selected image data to the engine controller (please note Fig.2b column 9 lines 4-68 and column 10 lines 1-19). transmitting means connected to the printer controller for selectively transmitting to the printer controller a second state signal indicating the condition of the printer (please note Fig.2c items 44,60,203,204, and 205 where these sensors sent signal the printer controller 201) and a processor connected to the transmitting means and the selector for controlling the selective transmission of the second state signal by said transmitting means, in accordance with a content of the state signal output by the engine controller and for controlling the selection of the selected image data by said selector (please note Fig.2c column 9 lines 30-61 where the signals are sent from the printer controller 201 to the engine controller 202).

Regarding claim 62 Kodama discloses: The controller according to claim 61, wherein said processor controls the selective transmission by said transmitting means also in accordance with a source of the selected image data (please note Fig.2a column 7 lines 45-66).

Regarding claim 63 Kodama discloses: The controller according to claim 61, wherein the condition indicated by the state signals is a change in a state of the printer (please note Fig.2c column 9 lines 30-62).

Regarding claims 64,71 and 77 Kodama discloses: A control method for an image forming apparatus connected to an external apparatus, the image forming apparatus employing a printer, an original-reading device which reads an original image and outputs reproduction image data based on the original image, a printer controller which receives printing data transferred from the external apparatus and outputs print

image data based on the printing data, and an engine controller which controls the printer based on the reproduction image data and the print image data and which outputs a first: state signal indicating a condition of the printer, said method comprising the steps of: receiving the reproduction image data from the original-reading device (please note Fig.2b item 101 image reader sends data to the engine controller 202 column 9 lines 4-67 and column 10 lines 1-19) receiving the print image data from the printer controller (please note Fig.2 item 201 printer controller sending data to the engine controller 202, column 9 lines 62-68 and column 10 lines 1019) receiving the first state signal from the engine controller (please note Fig.2c items 202 and 201 column 9 lines 30-61) selecting one of the received reproduction image data received and the received print image data (please note Fig.2b column 9 lines 61-67 and column 10 lines 1-19) relaying the selected image data to the engine controller (please note column 10 lines 1-19) and selectively transmitting a second state signal indicating the condition of the image forming device to the printer controller in accordance with a content of the received first state signal (please note Fig.2c items 44,60,203,204, and 205 signaling conditions to the printer controller 201 and engine controller 202 column 9 lines 30-61).

Regarding claim 65 Kodama discloses: The method according to claim 64, wherein in said selectively transmitting step the second state signal is selectively transmitted to the printer controller also in accordance with a source of the selected image data (please note column 9 lines 30-47).

Regarding claim 66 Kodama discloses: The method, according to claim 64, wherein the condition indicated by the state signals is a change in a state of the printer (please note Fig.2c column 9 lines 30-62).

Regarding claim 68 Kodama discloses: The apparatus according to claim 67, wherein the command is held in said buffer while said reader controller is relaying the reproduction image data only if the command causes a change in a load of said printer (please note column 10 lines 45-68).

Regarding claim 70 Kodama discloses: The apparatus according to claim 69, wherein said processor stores the command in the buffer while said selector is relaying the reproduction image data only if the command causes a change in a load of the printer (please note column 10 lines 55-68).

Regarding claim 72 Kodama discloses: The method according to claim 50, wherein the command is held in said holding step only if the command causes a change in a load of the printer (please note column 10 lines 45-59).

Regarding claim 74 Kodama discloses: The apparatus according to claim 73, wherein when there is a request to transmit the reproduction image data from said original-reading device to said engine controller while the print image data from said printer controller is being transmitted to said engine controller said reader controller interrupts transmission of the data transmission synchronization signal to said printer controller and utilizes the data transmission synchronization signal to control said original reading device (please note Fig.2c column 9 lines 30-62 where the sensors send signals to the printer controller and engine controller202).

Regarding claim 76 Kodama discloses: The apparatus according to claim 75, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said processor controls the gate to interrupt the transmission of the data transmission synchronization signal to the printer controller, and utilizes the data transmission synchronization signal to control the original-reading device (please note column 10 lines 20-43)

Regarding claim 78 Kodama discloses: The method according to claim 77, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller, said selectively transmitting step is interrupted and said selectively controlling step is performed (please note Fig.2b column 9 lines 62-68 and column 10 lines 1-19 where the reader device sends the image data to the engine controller and also the external device sends the data to the engine controller through the printer controller 201).

Other prior art cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beaudet et al (U.S. patent 6,469,795) is pertinent as disclosing a copier/printer with improved productivity.

Negishi (U.S. patent 6,462,830) is pertinent as disclosing an image processing apparatus and method, image forming system, image forming apparatus and method.

Rumph et al (U.S. patent 6,327,043) is pertinent as disclosing an object optimized printing system and method.

Contact Information

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (703) 306-3487.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (703) 305-4863.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

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Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy
Patent Examiner
Group Art Unit 2626
September 10 2003

Kimberly A. Williams
Primary Examiner
Technology Center 2600